# INDEX

BIOCHEMISTRY

Volume 31, 1966

BIOCHEMISTRY
Volume 31, 1966
(A translation of Biokhimiya)


A

Abrosimova-Amel'yanchik, N. M. - 882
Adler, V. V. - 346
Agabekyan, R. S. - 225
Agatova, A. I. - 260
Akimova, L. N. - 853
Akopyan, Zh. I. - 231
Aksel'rod, V. D. - 882
Aleinikova, T. L. - 994
Alekseeva, A. M. - 289
Alkhazov, D. G. - 759
Andreenko, G. V. - 417
Andreeva, A. P. - 863
Antoshechkin, A. G. - 925
Arkhangel'skaya, G. G. - 289
Astaurova, O. B. - 784, 1078
Atabekov, I. G. - 134, 583
Atanasov, B. P. - 48

B

Babenko, I. F. - 128
Babkina, G. T. - 873
Baev, A. A. - 101, 882
Bass, I. A. - 784, 925
Belavtseva, E. M. - 304
Belchev, B. G. - 384
Belitsina, N. V. - 367
Belousova, A. K. - 9
Belozerskaya, N. A. - 304
Belozerskii, A. N. - 643, 1097
Berdyshev, G. D. - 479
Berezov, T. T. - 77, 803
Bergel'son, L. D. - 1025
Biblashvili, R. Sh. - 346
Blazheevich, N. V. - 954
Blyumonfel'd, L. A. - 975
Bogdanov, A. A. - 777
Bogdanov, N. G. - 569
Bogdanova, E. S. - 352, 650
Bogdanova, I. P. - 759
Boiko, T. S. - 841
Bolotina, I. A. - 210, 565
Borkhsenius, S. N. - 304
Bozhkov, V. M. - 266
Bresler, S. E. - 671
Brestkin, A. P. - 51, 361, 1013
Budnitskaya, E. V. - 562
Budovskii, E. I. - 724
Bungova, V. G. - 551
Bychkov, S. M. - 465
Bystrova, M. I. - 69

C

Cheremisina, Z. P. - 442
Chernienko, N. S. - 280
Chikalova-Luzina, O. P. - 210
Chmutina, L. A. - 1

D

Dashkevich, V. S. - 479
Davydova, M. A. - 1007
Debabov, V. G. - 814, 1078
Degtyarev, S. F. - 1077, 1079
Darkanbaeva, G. T. - 1065
Davydov, V. D. - 1078
Debov, S. S. - 107
Del'vig, A. A. - 107
Demyanovskaya, N. S. - 694, 915
Denisovich, L. L. - 113
Dmitrovskii, A. A. - 759
Dronov, A. S. - 613
Dubovskaya, L. V. - 51
Dyatlovitskaya, E. V. - 1025

E

Egorova, T. P. - 409
Elaev, I. R. - 203
El'chits, S. V. - 235
Émanuél, N. M. - 260
Ermolaeva, L. P. - 740, 807
Erofeeva, N. N. - 759
Evgrafov, V. G. - 803
Evstigneev, V. B. - 1058

F

Fain, F. S. - 694, 915
Favorov, V. V. - 292
Filippova, R. D. - 937
Filippovich, Yu. B. - 551
Fomina, M. P. - 541
Frank-Kanmenetskii, M. D. - 689, 925
Frisman, É. V. - 891

G

Galyas, É. - 555
Gavrilov, V. Yu. - 689
Gavrilova, L. P. - 367
Gavrilova, V. A. - 1058
Gazaryan, K. G. - 90, 599
Gel'man, N. S. - 1041
Ginodman, L. M. - 274, 853, 931
Girshin, A. B. - 759
Girshovich, A. S. - 878
Glazer, V. M. - 982
Glebov, R. N. - 643
Glemzha, A. A. - 897
Glikina, M. V. - 379
Gol'dfarb, D. M. - 650
Gol'dshtein, B. N. - 473, 592
Gol'dshtein, I. I. - 799
Gomazkova, V. S. - 988
Gordeev, Yu. N. - 665
Goretov, V. P. - 764
Gorkin, V. Z. - 143, 245, 1047
Gorlenko, Zh. M. - 650, 784
Goryachenkova, E. V. - 81, 235
Grabrielyan, N. D. - 659
Grachev, M. A. - 724
Gridneva, L. I. - 143, 245, 716
Grigor'eva, G. M. - 640
Gromova, K. G. - 253
Gudkin, L. R. - 379
Guisinskii, G. M. - 759
Guseva, A. R. - 858

I

Il'in, G. S. - 149
Il'ina, T. S. - 925
Ispolatovskaya, M. V. - 429
Ivanov, I. I. - 280
Ivanov, K. K. - 299
Ivanova, L. A. - 361
Ivanova, T. M. - 1007

K

Kafiani, K. A. - 319
Kaftanova, A. S. - 583
Kagan, Z. S. - 311, 613
Kamzolova, S. G. - 784
Kaplanskii, S. Ya. - 231
Karyakin, A. V. - 1
Kaverzneva, E. D. - 117, 332, 863, 1037
Khadzhiolov, A. A. - 820
Khesin, R. B. - 352, 517, 650, 784
Kholchev, N. V. - 487
Khristova, P. Ts. - 461
Khvoika, L. A. - 643
Kiselev, L. L. - 173
Kiselev, N. A. - 517, 583
Kiseleva, V. V. - 1037
Klimacheva, L. V. - 429
Klimenko, A. I. - 388
Klyashtorin, L. B. - 143, 245, 716, 1047
Knorre, D. G. - 292, 579, 724, 769, 878, 1019
Knorre, V. L. - 620
Kobzeva, A. A. - 937
Kofman, E. B. - 949
Kokurina, N. K. - 732
Kolesnikov, P. A. - 796, 967
Kolesnikova, M. F. - 465
Kolodzeiskaya, M. V. - 494
Kondrashova, M. N. - 437
Korenyako, A. I. - 882
Korivnikov, K. A. - 64
Korovkin, B. F. - 280
Korzhov, V. A. - 58
Kovaleva, G. G. - 675
Kozlov, L. V. - 274
Kozlova, N. B. - 659
Krainev, S. I. - 21
Krasan, Yu. P. - 163
Krasheninnikov, I. A. - 732
Krasnovskii, A. A. - 69, 501
Kretovich, V. L. - 311, 555, 573, 613, 764
Krutilina, A. I. - 101
Krutyakov, V. M. - 671
Kukhtevich, V. I. - 107, 1077, 1079
Kulaev, I. S. - 732, 918
Kul'pina, L. M. - 1081
Kurganov, B. I. - 941
Kushner, V. P. - 266
Kuz'mina, Z. V. - 9
Kuznetsov, Yu. S. - 545, 675

L

Lapuk, V. Kh. - 117
Lednev, V. V. - 627
Lemazhikhin, B. K. - 627
Lemazhikhin, V. K. - 163
Lemberg, I. Kh. - 759
Lerman, M. I. - 367
Levdikova, G. A. - 707
Levitov, M. M. - 235, 1073
Li, L. - 101
Likhtenshtein, G. I. - 221
Likshina, L. A. - 122
Litvin, F. F. - 1087
Livanova, N. B. - 167
Lovkova, M. Ya. - 149
Luk'yanov, S. Yu. - 455
Luzikov, V. N. - 461
L'vova, O. F. - 442
Lyubimova, M. N. - 694, 915

M

Maizel', E. B. - 253
Makarova, L. S. - 325
Makhortykh, S. V. - 379
Maksimov, V. I. - 791
Mal'tsev, N. I. - 853, 931
Mal'tseva, V. I. - 824
Malygin, É. G. - 292
Malysheva, A. N. - 1019
Manoilov, S. E. - 337, 536
Mansurova, S. É. - 918
Manyakov, V. F. - 517
Markovich, D. S. - 565, 751, 1055
Matusis, I. I. - 569
Matyash, L. F. - 847
Matveeva, L. O. - 643
Mazurev, V. I. - 182
Medvedev, A. I. - 573
Mel'nikchenko, I. V. - 841
Mel'nikova, M. P. - 1055
Mel'nikova, N. L. - 319
Menzorova, N. I. - 724
Minkina, A. I. - 510
Mirzabekov, A. D. - 101
Mitenkov, F. M. - 1096
Moiseeva, L. N. - 1001
Mokul'skaya, T. D. - 650
Mokul'skii, M. A. - 650
Morozkin, A. D. - 167
Mushinskaya, G. S. - 292
Musin, I. I. - 1032
Mutuskin, A. A. - 796
Myasoedova, K. N. - 156

N

Nagradova, N. K. - 34
Nankina, V. P. - 949
Naumova, I. B. - 1097
Neifakh, A. A. - 319
Neifakh, S. A. - 1055
Nemchinskaya, V. L. - 266
Nemtsova, T. V. - 878
Nesmeyanova, M. A. - 777
Nezlin, R. S. - 450, 1081
Niedra, N. Ya. - 882
Nikitin, V. Ya. - 221
Nikitina, V. D. - 487
Nikolaeva, L. V. - 437
Novikov, V. K. - 134, 583
Novikova, N. V. - 404
Novitskaya, G. V. - 824

O

Okulov, V. I. - 665
Oparin, A. I. - 1041
Orekhovich, V. N. - 122, 274, 853, 931
Osterman, L. A. - 346
Ostrovskii, D. N. - 1041
Ostrovskii, Yu. M. - 40
Ovander, M. N. - 970
Ozrina, R. D. - 437

P

Pakhomova, M. V. - 1065
Paseshnichenko, V. A. - 858
Paskhina, T. S. - 409
Pasynskii, A. G. - 1001
Penzikova, G. A. - 1073
Petrochenko, E. I. - 967
Petrova, A. N. - 399, 937
Perevertailo, G. A. - 197
Pevzner, D. L. - 1013
Pikhelgas, V. Ya. - 167
Pisarenko, N. F. - 399
Poglazov, B. F. - 304
Pokrovskii, A. A. - 64, 1032
Polosova, R. G. - 536
Polyakov, V. A. - 311
Polyanovskii, O. L. - 325
Ponomareva, R. B. - 5
Popov, A. G. - 671
Popova, I. A. - 869
Poverennyi, A. M. - 994
Preobrazhenskaya, M. E. - 833
Prokof'ev, M. A. - 918
Prokof'eva, E. G. - 404
Prokoshkin, B. D. - 90
Pshenova, K. V. - 796
Purmal', A. P. - 221
Pustoshilova, N. M. - 579, 873, 1019

R

Rachkus, Yu. A. - 319
Raikhman, L. M. - 241, 975

Rapova, É. A. - 1047
Rebintish, B. A. - 814
Romanova, I. N. - 9
Rosanov, R. Ya. - 702
Roschupkin, D. I. - 799
Rozenfel'd E. L. - 833, 869
Rozengart, V. I. - 962
Rubin, B. A. - 1007

S

Sadovnikova, N. A. - 1058
Saenko, A. S. - 994
Salganik, R. I. - 479, 620
Samsonov, G. V. - 5, 379
Sandakhchiev, L. S. - 58, 724, 970
Savochkina, L. P. - 346
Savodskii, P. - 751
Severin, S. E. - 897
Sevast'yanov, A. P. - 1019
Shabarova, Z. A. - 918
Shamovskii, G. G. - 1019
Shapiro, T. V. - 891
Shandalova, L. P. - 5
Shchagina, L. V. - 891
Shemyakin, M. F. - 517, 784
Shcherbak, I. G. - 962
Shestakov, S. V. - 982
Shibaeva, I. V. - 299
Shishkin, G. V. - 878
Shkol'nik, R. Ya. - 756
Shamkova, F. V. - 332, 863
Shmeleva, V. G. - 962
Shipkiter, V. O. - 167
Shul'ga, A. V. - 606
Shuppe, N. G. - 90, 455, 599
Shutov, A. D. - 632
Shuvalov, V. A. - 1087
Sidorova, E. V. - 681
Sidorova, N. D. - 536
Silaeva, S. A. - 982
Sisakyan, N. M. - 128, 195
Skulachev, V. P. - 113, 799
Soliternova, I. B. - 253
Solov'ev, V. A. - 1065
Spirichev, V. B. - 954
Spirin, A. S. - 367
Starikova, N. A. - 759
Stepanov, V. M. - 545, 675, 847
Strukova, S. M. - 417
Sugrobova, N. P. - 941
Surinov, B. P. - 337
Svechnikova, V. V. - 361

T

Tatarskaya, R. I. - 882
Tepelina, O. M. - 791
Teplova, N. M. - 579
Tikhonenko, T. I. - 27, 197
Tikhonov, V. K. - 1077, 1079
Timofeeva, M. Ya. - 319
Titova, G. V. - 959
Tolosa, É. A. - 81
Tongur, V. S. - 423, 606
Torchinskii, Yu. M. - 909
Troitskaya, O. V. - 530
Troitskii, G. V. - 665
Tsimarkina, G. E. - 487
Tsyperovich, A. S. - 494
Tsypin, S. G. - 1077, 1079
Tukachinskii, S. E. - 266
Turchenko, E. I. - 266

U

Ulasevich, I. I. - 569
Umrikhina, A. A. - 69
Ushakova, N. A. - 869

V

Vaintraub, I. A. - 632
Valueva, T. A. - 274, 853
Varshavskii, Ya. M. - 346
Vartapetyan, B. B. - 759
Vasileiskii, S. S. - 829
Vasilenko, S. K. - 873
Vasilets, I. M. - 394
Vazina, A. A. - 163, 627
Veinova, M. K. - 128
Venkstern, T. V. - 101
Vina, I. - 245
Vinogradov, A. D. - 437
Vladimiov, Yu. A. - 442
Vladychenskaya, N. S. - 423
Vitvitskii, V. N. - 777
Volkenshtein, M. V. - 751
Volkova, N. V. - 841
Vokova, V. I. - 1025
Vol'kenshtein, M. V. - 210, 473, 565, 592, 1055
Vorob'ev, V. I. - 891
Vorob'eva, L. M. - 501
Vorotilo, S. P. - 197
Voskoboinikov, G. V. - 903
Votrin, I. I. - 107
Vovsi, B. A. - 536
Vylcheva, L. V. - 820

Y

Yakovlev, V. A. - 225
Yakovleva, V. I. - 555, 764
Yasnikov, A. A. - 841,
Yurchenko, S. N. - 163

Z

Zagrebel'nyi, S. N. - 769
Zaitseva, G. N. - 643, 1065
Zak, V. I. - 27
Zamchuk, L. A. - 650
Zavodskii, P. - 565
Zefirova, L. I. - 9
Zhilyaeva, T. I. - 173
Zhukova, I. G. - 1041
Zil'ber, L. S. - 897
Zubzhitskii, Yu. N. - 394

# TABLE OF CONTENTS

BIOCHEMISTRY
Volume 31, 1966

(A translation of Biokhimiya)

Engl./Russ.

## Number 1 January, 1966

Investigation of the Interaction of Chlorophyllin (a + b) with Glycinine at Various pH Values — A. V. Karyakin and L. A. Chmutina . . . . . 1 3
Investigation of the Interrelationship between the Electrochemical Structure of Proteins and Their Secondary and Tertiary Structure by the Sorption Method — G. V. Samsonov, R. B. Ponomareva, and L. P. Shandalova. . . . . 5 8
On the Mechanism of the Cytotoxic Action of Alkylating Agents — A. K. Belousova, I. N. Romanova, Z. V. Kuz'mina, and L. I. Zefirova. . . . . 9 13
The Spectral Characteristics of Catalase and Hemoglobin from Human Erythrocytes—S. I. Krainev . 21 26
The Molecular Weight of DNA of the $s_d$ Phage of E. coli SK — T. I. Tikhonenko and V. I. Zak. . . . 27 33
Study of the Action of Ortho-Phenanthroline on the Activity of 3-Phosphoglyceraldehyde Dehydrogenase from the Skeletal Muscles of Rabbits — N. K. Nagradova. . . . . 34 42
On the Role of the Amino Group of the Pyrimidine Component of Thiamine in the Mechanisms of Tissue Deposition of the Vitamin — Yu. M. Ostrovskii. . . . . 40 50
Physicochemical Characteristics of Met-Myoglobin from Delphinus delphis — B. P. Atanasov. . . . . 48 59
Effect of Inhibitors and Activators on the Kinetics of the Hydrolysis of Sodium Phenylphosphate under the Action of Alkaline Phosphatase — A. P. Brestkin and L. V. Dubovskaya. . . . . 51 63
Inhibition of Activity of Aminoacyl-RNA-Synthetases by the Action of s-RNA with a Chemically Modified Terminal Acceptor Nucleotide — V. A. Korzhov and L. S. Sandakhchiev. . . . . 58 71
Floating Tray Zonal Electrophoresis — A. A. Pokrovskii and K. A. Korovnikov. . . . . 64 78
Photoreduction of Protochlorophyll and Protopheophytin — M. I. Bystrova, A. A. Umrikhina, and A. A. Krasnovskii. . . . . 69 83
Deamination of L-Isomers of Serine and Threonine in Hepatomas of Rats and Mice — T. T. Berezov. 77 93
Purification and Catalytic Properties of Cysteine Lyase in the Yolk Sac of Chick Embryos — É. A. Tolosa and E. V. Goryachenkova. . . . . 81 98
Some Aspects of the Biosynthesis of RNA in Animal Cells — K. G. Gazaryan, N. G. Shuppe, and B. D. Prokoshkin. . . . . 90 108

## Number 2 February, 1966

Oligonucleotides of a Guanyl-Ribonuclease Hydrolyzate of the Valine Transfer RNA of Yeast — L. Li, T. V. Venkstern, A. D. Mirzabekov, A. I. Krutilina, and A. A. Baev. . . . . 101 117
The Partial Purification and Properties of RNA-Polymerase from Rat's Liver—S. S. Debov, I. I. Votrin, and A. A. Del'vig . . . . . 107 125
The Redox Properties of Adenine Derivatives—V. P. Skulachev and L. I. Denisovich. . . . . 113 132
The Action of Hydrazine on Ovomucoid—E. D. Kaverzneva and V. Kh. Lapuk. . . . . 117 137
The Study of the Action of Acetylimidazole on Pepsin—L. A. Likshina and V. N. Orekhovich. . 122 143
Acid-Soluble Nucleotide-Peptides of the Rabbit's Liver—M. K. Veinova, I. F. Babenko, and N. M. Sisakyan . . . . . 128 151

| | Engl. | Russ. |
|---|---|---|
| Some Properties of the Nucleoprotein of Barley Mosaic Virus and of Its Structural Components—I. G. Atabekov and V. K. Novikov | 134 | 157 |
| Chromatographic Purification and Some Properties of the Monoamine Oxidase of Liver Mitochondria—L. B. Klyashtorin, L. I. Gridneva, and V. Z. Gorkin | 143 | 167 |
| Participation of Nicotine in the Nitrogen Metabolism of Nicotiana tabacum L.—G. S. Il'in and M. Ya. Lovkova | 149 | 174 |
| Regulation of Breakdown of Histidine in the Liver by Deaminase—K. N. Myasoedova | 156 | 182 |
| Study of the Structural Parameters of Myosin—S. N. Yurchenko, A. A. Vazina, V. K. Lemazhikhin, and Yu. P. Krasan | 163 | 190 |
| Dissociation of Phosphorylases A and B from Rabbit Muscles—N. B. Livanova, A. D. Morozkin, V. Ya. Pikhelgas, and V. O. Shpikiter | 167 | 194 |
| Inhibition of Synthesis of Polypeptides in Ribosomes by Transfer Ribonucleic Acids—T. I. Zhilyaeva and L. L. Kiselev | 173 | 201 |
| The Effect of Actinomycin on the Synthesis of Collagen and Other Proteins in the Connective Tissue of Implanted Sponges and in the Cartillage of Chick Embryos—V. I. Mazurev | 182 | 212 |


## Number 3 March, 1966


| | Engl. | Russ. |
|---|---|---|
| Norair Martirosovich Sisakyan (1907-1966) | 195 | 225 |
| The Chloroform Precipitation Method Applied in a Study of DNA Denaturation—T. I. Tikhonenko, G. A. Perevertailo, and S. P. Vorotilo | 197 | 227 |
| The Isolation and Some Properties of Ribosomes from a Highly Purified Mitochondria Fraction—I. R. Elaev | 203 | 234 |
| A Study of Conformational Changes in α-Chymotrypsin by the Rotatory Dispersion Method—I. A. Bolotina, M. V. Vol'kenshtein, and O. P. Chikalova-Luzina | 210 | 241 |
| The Mechanism by Which Polyene Antimycetic Antibiotics Inhibit Glycolysis in Animal Tissues—A. N. Klimov and V. N. Litvinova | 215 | 246 |
| Investigation of the Catalase Process by the Method of Varying the Properties of the Medium—G. I. Likhtenshtein, V. Ya. Nikitin, and A. P. Purmal' | 221 | 253 |
| Kinetic Constants of Cholinesterase and Substrate Specificity—V. A. Yakovlev and R. S. Agabekyan | 225 | 258 |
| Ogebylalanine and Tyrosine Metabolism and its Regulation by Thyroid Hormones in the Brain of Albino Rats—S. Ya. Kaplanskii and Zh. I. Akopyan | 231 | 265 |
| The Isolation, Purification, and Catalytic Properties of a Bacterial Enzyme Splitting the Benzyl Ester of Carbocillin—M. M. Levitov, E. V. Goryachenkova, and S. V. El'chits | 235 | 270 |
| Manometric Determination of the Respiration of Mitochondria with Graphical Recording—L. M. Raikhman | 241 | 277 |
| On the Mechanism of the Inhibition of the Activity of Mitochondrial Monoamine Oxidase by Pargyline—I. Vina, V. Z. Gorkin, L. I. Gridneva, and L. B. Klyashtorin | 245 | 282 |
| Glucokinases of the Rat Epididymal Adipose Tissue—K. G. Gromova, E. B. Maizel', and I. B. Soliternova | 253 | 291 |
| The Effect of Propyl Gallate on Enzymes Containing SH and S—S Groups—A. I. Agatova and N. M. Émanuél | 260 | 299 |
| On the Properties of NAD-Kinase from the Pigeon Liver—V. L. Nemchinskaya, V. P. Kushner, V. M. Bozhkov, E. I. Turchenko, and S. E. Tukachinskii | 266 | 306 |
| Free Energy of Hydrolysis of the Peptide Bond and Enzymatic Synthesis of Esters of N-Acetyldipeptides—L. V. Kozlov, L. M. Ginodman, V. N. Orekhovich, and T. A. Valueva | 274 | 315 |
| Enzymic Properties of Sarcoplasmic Proteins from the Rat Skeleton, Cardiac and Smooth Muscles—I. I. Ivanov, B. F. Korovkin, and N. S. Chernienko | 280 | 322 |

## Number 4 April, 1966


| | | |
|---|---|---|
| The Biosynthesis of Creatine in Muscles—A. M. Alekseeva and G. G. Arkhangel'skaya | 289 | 330 |
| Kinetics of the Addition Reaction of Water-Soluble Carbodiimide with Nucleosides and with Transfer Ribonucleic Acid—D. G. Knorre, É. G. Malygin, G. S. Mushinskaya, and V. V. Favorov | 292 | 334 |
| Isotherm of Adsorption on an Anion Exchange Resin and the Electrophoretic Mobility of Some Carbohydrate Borate Complexes—K. K. Ivanov and I. V. Shibaeva | 299 | 342 |
| Studies of the Aggregation of T2-Phage Tail Sheaths—B. F. Poglazov, S. N. Borkhsenius, N. A. Belozerskaya, and E. M. Belavtseva | 304 | 348 |
| Valine Dehydrogenase Activity of Pea Seedlings—Z. S. Kagan, V. L. Kretovich, and V. A. Polyakov | 311 | 355 |
| Effect of Roentgen-Ray Irradiation on Synthesis of Information RNA in the Early Embryogensis of the Loach—K. A. Kafiani, M. Ya. Timofeeva, A. A. Neifakh, Yu. A. Rachkus, and N. L. Mel'nikova | 319 | 365 |
| Quaternary Structure and Catalytic Activity of Aspartate Transaminase—O. L. Polyanovskii and L. S. Makarova | 325 | 372 |
| Investigation of the Hydrolysis of Ovalbumin by Trypsin—E. D. Kaverzneva and F. V. Shmakova | 332 | 380 |
| Production and Properties of Insoluble Compounds of Certain Enzymes with Cellulose —B. P. Surinov and S. E. Manoilov | 337 | 387 |
| Slow Isotopic Exchange of Hydrogen in the DNA of Phage T2—L. A. Osterman, V. V. Adler, R. Sh. Biblashvili, L. P. Savochkina, and Ya. M. Varshavskii | 346 | 398 |
| Specificity of DNA Methylase in Cells of E. coli B, Infected with Phage T2—R. B. Khesin and E. S. Bogdanova | 352 | 405 |
| On the Influence of Choline on the Rate of Hydrolysis of Acetylcholine Under the Action of Bovine Erythrocyte Acetylcholinesterase—A. P. Brestkin, L. A. Ivanova, and V. V. Svechnikova | 361 | 416 |
| Reconstruction of Biologically Active Ribosomes from Protein-Poor Ribonucleoprotein Particles and Ribosomal Protein—A. S. Spirin, M. I. Lerman, L. P. Gavrilova, and N. V. Belitsina | 367 | 424 |


## Number 5 May, 1966


| | | |
|---|---|---|
| Academician N. N. Semenov (On His Seventieth Birthday) | 377 | 433 |
| Specificity of Hydrolysis of the A and B Chains of Oxidized Insulin by Ion Exchange Resins —M. V. Glikina, L. R. Gudkin, S. V. Makhortykh, and G. V. Samsonov | 379 | 435 |
| On the Role of Cations of Divalent Metals and a Ribonuclease Inhibitor in the Decomposition of RNA in Rat Liver Homogenates—B. G. Belchev | 384 | 441 |
| Quantitative Changes in the Histones and Nucleic Acids in the Cellular Nuclei of the Liver during Stimulation and Inhibition of Processes of Protein Synthesis in the Organism —A. I. Klimenko | 388 | 446 |
| The Antigenic Similarity between Myofibrillar Myosin and the Myosin-like Proteins of the Membranous Structures in Liver—I. M. Vasilets and Yu. N. Zubzhitskii | 394 | 453 |
| Separation from Muscle of a Transglycosylase Active to Maltose and a Study of Some of Its Properties—N. F. Pisarenko and A. N. Petrova | 399 | 458 |
| The Kinetics of Simultaneous Hydrolysis of Phenylphosphate and Glycolphosphate by Alkaline Phosphatase—N. V. Novikova and E. G. Prokof'eva | 404 | 463 |
| Purification and Properties of Kininogen (Bradykininogen) from Rabbit Blood Serum —T. S. Paskhina and T. P. Egorova | 409 | 468 |
| Isolation of a Highly Active Protease from the Culture Liquor of Aspergillus oryzae —G. V. Andreenko and S. M. Strukova | 417 | 477 |

| | Engl. | Russ. |
|---|---|---|
| Isolation and Properties of RNA-DNA Complex from Escherichia coli Cells —N. S. Vladychenskaya and V. S. Tongur | 423 | 484 |
| Effects of Certain Chemical Compounds on Lecithinase of Cl. perfringens —M. V. Ispolatovskaya and L. V. Klimacheva | 429 | 491 |
| Reversed Electron Transfer and Accompanying Changes in the SH-Groups in the Mitochondria after Addition of Cysteine—A. D. Vinogradov, L. V. Nikolaeva, R. D. Ozrina, and M. N. Kondrashova | 437 | 501 |
| Ultraweak Luminescence of the Mitochondria and Its Relationship to the Enzymatic Oxidation of Lipids—Yu. A. Vladimirov, O. F. L'vova, and Z. P. Cheremisina | 442 | 507 |
| Incorporation of Amino Acids into the Proteins of the Microsomes of the Spleen and Lymph Nodes of Rabbits—R. S. Nezlin | 450 | 516 |
| On the Inhibition of RNA Synthesis by Actinomycin—S. Yu. Luk'yanov and N. G. Shuppe | 455 | 521 |
| Modification of Trypsin by N-Bromosuccinimide and Peracetic Acid—V. N. Luzikov and P. Ts. Khristova | 461 | 528 |
| Determination of Glucosamine and Galactosamine in Mucoproteins and Mucopolysaccharides —S. M. Bychkov and M. F. Kolesnikova | 465 | 533 |


## Number 6 June, 1966


| | | |
|---|---|---|
| New Method of Solving Problems of the Stationary Kinetics of Enzyme Reactions — M. V. Vol'kenshtein and B. N. Gol'dshtein | 473 | 541 |
| Investigation of the State of DNA in Rapidly Growing Cells — V. S. Dashkevich, G. D. Berdyshev, and R. I. Salganik | 479 | 548 |
| Use of Electrophoretic Flow-Convection Technique to Isolate γ-Globulin from Human Placental Serum and Sera of Certain Animals — V. D. Nikitina, N. V. Kholchev, and G. E. Tsimarkina | 487 | 556 |
| The Production and Investigation of Highly Purified Preparations of α-Chymotrypsin and Trypsin Corresponding in Purity to Crystalline Enzymes — A. S. Tsyperovich and M. V. Kolodzeiskaya | 494 | 564 |
| Influence of Disaggregating Agents on the Formation of Chlorophyllide and the Properties of Chlorophyll in Chloroplasts and Leaf Homogenates — L. M. Vorob'eva and A. A. Krasnovskii | 501 | 573 |
| Biological Properties and Chemical Composition of Fractions of Gonadotrophic Preparations Purified by Starch Block Electrophoresis — A. I. Minkina | 510 | 585 |
| Synthesis of RNA on Both Strands of Depolymerized DNA — M. F. Shemyakin, V. F. Manyakov, N. A. Kiselev, and R. B. Khesin | 517 | 594 |
| A Comparative Study of Tryptic Hydrolyzates of Horse, Beef, and Human Myoglobin by Peptide Mapping — O. V. Troitskaya | 530 | 605 |
| The Effect of Catalase on the Coupled Oxidative Phosphorylation Process and on the Adenylate System in Albino Rat Liver — S. E. Manoilov, B. A. Vovsi, R. G. Polosova, and N. D. Sidorova | 536 | 613 |
| Effects of Glucocorticosteroids on the Activity of Liver Hexokinase and Glucokinase in Adrenalectomized Rats — M. P. Fomina | 541 | 619 |
| Sequence of Amino Acids Adjacent to the Arginine Residues in Hog Pepsin — Yu. S. Kuznetsov and V. M. Stepanov | 545 | 623 |
| Amino Acid Metabolism in Silkworm Larvae (Bombyx mori) — Yu. B. Filippovich and V. G. Bungova | 552 | 631 |
| Alanine and Glutamate Dehydrogenases of Lactabacillus plantarum — É. Galyas, V. I. Yakovleva, and W. L. Kretovich | 556 | 636 |
| All-Union Biochemical Society — E. V. Budnitskaya | 563 | 645 |

## Number 7 July, 1966


Polarimetric Investigation of the Conformational Changes of D-Glyceraldehyde-3-Phosphate Dehydrogenase—I. A. Bolotina, M. V. Vol'kenshtein, P. Zavodskii, and D. S. Markovich ..... 567 649

Influence of Alpha-Tocopherol on Changes in the Contractile and Enzymatic Properties of Myosin Induced by K-Avitaminosis—I. I. Matusis, I. I. Ulasevich, and N. G. Bogdanov ..... 571 654

Two Pathways of Lysine Biosynthesis in Higher Plants—A. I. Medvedev and V. L. Kretovich ..... 575 659

Action of Spleen and Snake Venom Phosphodiesterases on Transfer-RNA Acetylated on the Ribose 2'-Hydroxyl Group—D. G. Knorre, N. M. Pustoshilova, and N. M. Teplova ..... 581 666

A Study of Virus Protein Repolymerization and Resynthesis of Some Rodlike Viruses —N. A. Kiselev, I. G. Atabekov, A. S. Kaftanova, and V. K. Novikov ..... 585 670

Models of Allosteric Enzymes and Their Analysis by the Graph Theory Method—M. V. Vol'kenshtein and B. N. Gol'dshtein ..... 594 679

The Nucleotide Composition of Ribosomal RNA and Some Properties of AU-Type RNA in Animal Cells—K. G. Gazaryan and N. G. Shuppe ..... 601 687

Incorporation of Labeled Amino Acids into Subcellular Structures of the Protoplasts of Micrococcus lysodeikticus—A. V. Shul'ga and V. S. Tongur ..... 608 696

Transamination of Keto Analogs of Valine and Isoleucine with Various Amino Acids in Extracts from Pea Seedlings—Z. S. Kagan, V. L. Kretovich, and A. S. Dronov ..... 615 704

Dissociation of DNP under the Action of Deoxyribonuclease I—V. L. Knorre and R. I. Salganik ..... 622 712

Molecular Characteristics of Pepsin in Solution and Nature of the Forces that Stabilize the Complex Pepsin Globule—A. A. Vazina, V. V. Lednev, and B. K. Lemazhikhin ..... 629 720

Chromatographic Isolation and Some Properties of the Legumin and Vicilin of Vetch —A. D. Shutov and I. A. Vaintraub ..... 634 726

Effect of Tetra-alkylammonium Ions on the Inactivation of Cholinesterases by Heat —G. M. Grigor'eva ..... 642 736

Heterogeneity of Transfer (Soluble) RNA and Its Possible Connection with Degeneration of the Code—G. N. Zaitseva, R. N. Glebov, L. O. Matveeva, L. A. Khvoika, and A. N. Belozerskii ..... 645 740

Some Properties of the Nonglucosylated DNA of Phage T2—T. D. Mokul'skaya, Zh. M. Gorlenko, L. A. Zamchuk, E. S. Bogdanova, M. A. Mokul'skii, D. M. Gol'dfarb, and R. B. Khesin ..... 650 749


## Number 8 August, 1966


The Role of Synthetic Analogues of Uridine Diphosphateglucose in the Reaction Mediated by Sucrose-UDP-Glucosyltransferase (UDPG-D-Fructose-2-Glycosyltransferase) from Pea Seedlings—N. D. Gabrielyan and N. B. Kozlova ..... 659 760

The Conformation of γ-Globulin as Revealed by the Kinetics of Its Destruction—V. I. Okulov, G. V. Troitskii, and Yu. N. Gordeev ..... 665 768

On the Enzymatically Active Products of Trypsin Autolysis—S. E. Bresler, V. M. Krutyakov, and A. G. Popov ..... 671 776

Sequence of Amino Acids in the Lysine-Containing Peptides Isolated from Hog Pepsin Hydrolyzates—Yu. S. Kuznetsov, G. G. Kovaleva, and V. M. Stepanov ..... 675 781

The Action of Histones on Synthesis of Antibodies and Other Celluar Proteins in Vitro—E. V. Sidorova ..... 681 789

| | Engl. | Russ. |
|---|---|---|
| The Problem of Amino Acid Sequence Determination in Polypeptides by the Mass Spectrum of Their Fragments—V. Yu. Gavrilov, A. D. Frank-Kamenetskii, and M. D. Frank-Kamenetskii | 689 | 799 |
| The Separation of Apyrase from Mimosa pudica Leaves into ADPase and ATPase Activated by Manganese Ions—M. N. Lyubimova, F. S. Fain, and N. S. Demyanovskaya | 694 | 805 |
| Determination of Thiamine Triphosphate in Animal Tissues—A. Ya. Rosanov | 702 | 815 |
| The Liberation and Some Properties of Collagenase from Clostridium perfringens —G. A. Levdikova | 707 | 821 |
| Sulfhydryl Groups of Mitochondrial Monoamine Oxidase—L. B. Klyashtorin and L. I. Gridneva | 716 | 831 |
| Isolation of Valine-Specific Transfer RNA—M. A. Grachev, N. I. Menzorova, L. S. Sandkhachiev, E. I. Budovskii, and D. G. Knorre | 724 | 840 |
| On the Localization of Inorganic Polyphosphates and Nucleotides in the Mycelium of Neurospora crassa—I. S. Kulaev, I. A. Krasheninnikov, and N. K. Kokurina | 732 | 850 |
| Mechanisms of the Enzymatic Degradation of Deoxyribonucleoproteins under the Action of the Protein Fraction from the Nuclei of the Calf Thymus—N. V. Ermolaeva | 740 | 860 |


## Number 9 September, 1966


| | | |
|---|---|---|
| On the Structure of D-Glyceraldehyde-3-Phosphate Dehydrogenase — D. S. Markovich, P. Savodskii, and M. V. Volkenshtein | 751 | 873 |
| Chromatographic Separation of Certain Proteins and Polysaccharides from the Products of Their Hydrolysis — R. Ya. Shkol'nik | 756 | 878 |
| A New Approach to the Study of the Mechanism of Biosynthesis of Vitamin A from Carotene by Activation of Oxygen $O^{18}$ as a Result of a Nuclear Reaction $O^{18}(\alpha, n\gamma)Ne^{21}$ by Means of $\alpha$-particles Accelerated in a Cyclotron — B. B. Vartapetyan, A. A. Dmitrovskii, D. G. Alkhazov, I. Kh. Lemberg, A. B. Girshin, G. M. Guisinskii, N. A. Starikova, N. N. Erofeeva, and I. P. Bogdanova | 759 | 881 |
| Purification and Determination of Properties of Glutamate Hydrogenase from Plants — V. I. Yakovleva, V. L. Kretovich, and V. P. Goretov | 764 | 887 |
| Preparation and Some Properties of Transfer Ribonucleic Acid Peptidyl Derivatives— S. N. Zagrebel'nyi and D. G. Knorre | 769 | 893 |
| Study of the Mechanism of Formation of the Macrostructure of Alkaline Phosphatase from Escherichia coli in the Process of Its Biosynthesis — M. A. Nesmeyanova, V. N. Vitvitskii, and A. A. Bogdanov | 777 | 902 |
| Specificity of RNA Synthesis in Phage Infection — M. F. Shemyakin, I. A. Bass, S. G. Kamzolova, Zh. M. Gorlenko, O. B. Astaurova, and R. B. Khesin | 784 | 910 |
| Chitodextrin as Substrate and Primer in the Reaction Between Lysozyme and Oligosaccharides — V. I. Maksimov and O. M. Tepelina | 791 | 918 |
| Ferredoxin from Wheat Leaves — A. A. Mutuskin, K. V. Pshenova, and P. A. Kolesnikov | 796 | 924 |
| The Low Temperature Luminescence Spectra of Adenine and Its Derivatives — I. I. Gol'dshtein, D. I. Roschupkin, and V. P. Skulachev | 799 | 927 |
| The Effect of Toxic Doses of Diethylnitrosamine on Transaminase Activity in Rat Liver — V. G. Evgrafov and T. T. Berezov | 803 | 932 |
| Fractionation and Metabolic Activity of Nucleolar Protein of Mammalian Cells — L. P. Ermolaeva | 807 | 936 |
| Fractionation of Histones by Electrophoresis in Polyacrylamide Gel — V. G. Debabov and B. A. Rebintish | 814 | 943 |
| Free Nucleotides of the Anterior and Posterior Lobes of the Bovine Pituitary Gland — L. V. Vylcheva and A. A. Khadzhiolov | 820 | 948 |
| Triglyceride Composition of Monarda fistulosa L., Monarda mollis L., and Pycnanthemum virginianum L. (Fam. Labiatae) — G. V. Novitskaya and V. I. Mal'tseva | 824 | 953 |
| Physicochemical Characteristics of Human $\beta$-Fetoprotein — S. S. Vasileiskii | 829 | 959 |

Engl./Russ.

Study of the Biological Effects and Structural Peculiarities of Native Dextrans — M. E. Preobrazhenskaya and E. L. Rozenfel'd ..... 833 962

## Number 10 October, 1966

On the Mechanism of Aldolase Action – A. A. Yasnikov, T. S. Boiko, N. V. Volkova, and I. V. Mel'nichenko ..... 841 969

Specific Acylation of Chymotrypsin with the S-Carboxymethyl Mercaptide of p-Mercuribenzoyl Azide – V. M. Stepanov and L. F. Matyash ..... 847 976

Investigation of the Specificity of Pepsin in Transpeptidation Reactions – N. I. Mal'tsev, L. M. Ginodman, V. N. Orekhovich, T. A. Valueva, and L. N. Akimova ..... 853 983

Study of the Biosynthesis of Essential Oil Alcohols in Rosa damascena Mill × R. gallica L. – A. R. Guseva, and V. A. Paseshnichenko ..... 858 988

Investigation of the High Molecular Fraction of the Tryptic Hydrolyzate of Egg Albumin (Fraction T-1) – E. D. Kaverzneva, F. V. Shmakova, and A. P. Andreeva ..... 863 993

Purified Preparations of Neutral γ-Amylase from Rat Liver – E. L. Rozenfel'd, N. A. Ushakova, and I. A. Popova ..... 869 1001

Chromatography of Spleen Phosphodiesterase on Sulfoethylcellulose and a Study of the Endonuclease Activity of the Enzyme – G. T. Babkina, S. K. Vasilenko, and N. M. Pustoshilova ..... 873 1007

Pentafluorophenylalanine as Substrate in Certain Enzymatic Reactions – A. S. Girshovich, D. G. Knorre, T. V. Nemtsova, and G. V. Shishkin ..... 878 1013

Isolation and Purification of Guanyl-Ribonuclease from Actinomycetes – R. I. Tatarskaya, N. M. Abrosimova-Amel'yanchik, V. D. Aksel'rod, A. I. Korenyako, N. Ya. Niedra, and A. A. Baev ..... 882 1017

Hydrodynamic Behavior of Nucleic Acid Molecules in Solutions of Different Ionic Strengths – É. V. Frisman, L. V. Shchagina, V. I. Vorob'ev, and T. V. Shapiro ..... 891 1027

Isolation and Characteristics of Three Components of Muscle Pyruvate Dehydrogenase – A. A. Glemzha, L. S. Zil'ber, and S. E. Severin ..... 897 1033

Quantitative Determination of Free Tissue Ribonucleotides by the Method of High-Voltage Electrophoresis – G. V. Voskoboinikov ..... 903 1041

Circular Dichroism of the Pyridoxylidene-α-Amino Acids and Their Complexes with Copper Ions – Yu. M. Torchinskii ..... 909 1046

$Mn^{++}$-ATPase and ADPase in the Leaves of Higher Plants – M. N. Lyubimova, F. S. Fain, and N. S. Demyanovskaya ..... 915 1053

State of Nucleotides in Mycelium of Penicillium chrysogenum – S. É. Mansurova, Z. A. Shabarova, I. S. Kulaev, and M. A. Prokof'ev ..... 918 1057

SCIENTIFIC CONFERENCES

Structure, Properties, and Genetic Functions of DNA – A. G. Antoshechkin, I. A. Bass, T. S. Il'ina, and M. D. Frank-Kamenetskii ..... 925 1067

## Number 11 November, 1966

Investigation of the Ability of Carboxypeptidase A to Catalyze the Reactions of Oxygen Isotope Exchange and Transpeptidation—L. M. Ginodman, N. I. Mal'tsev, and V. N. Orekhovich. ..... 931 1073

| | Engl. | Russ. |
|---|---|---|
| Participation of RNA in the Formation of the Enzyme-Substrate Complex During the Action of Amylose-Isomerase—A. N. Petrova, R. D. Filippova, and A. A. Kobzeva | 937 | 1079 |
| Study of the Dissociation of Lactate Dehydrogenase from Rabbit Muscle —B. I. Kurganov and N. P. Sugrobova | 941 | 1084 |
| Distribution of Light Meromyosin in the DEAE-Sephadex Column—E. B. Kofman and V. P. Nankina | 949 | 1094 |
| Interaction of Ergocalciferol (Vitamin $D_2$) with Oxyhemoglobin and Cytochrome c —N. V. Blazheevich and V. B. Spirichev | 954 | 1100 |
| The Interaction of Insulin, Oxytocin, and Vasopressin with Yeast Hexokinase —G. V. Titova | 959 | 1107 |
| An Electrometric Method of Determining Cholinesterase Activity with Automatic Recording—V. I. Rozengart, V. G. Shmeleva, and I. G. Shcherbak | 962 | 1111 |
| Oxidation of NAD·$H_2$ by Subcellular Fractions with the Participation of Peroxidase and Molecular Oxygen—E. I. Petrochenko and P. A. Kolesnikov | 967 | 1117 |
| Preparative Production of Partially Enriched Samples of Aminoacyl-tRNA-Synthetases from Bakers' Yeast—M. N. Ovander and L. S. Sandakhchiev | 970 | 1121 |
| Semiquinone Free Radicals in Respiration and Phosphorylation Processes in the Mitochondria—L. M. Raikhman and L. A. Blyumenfel'd | 975 | 1127 |
| The Effect of Gramicidin S on Phosphorus Metabolism in Bacillus brevis G-B —V. M. Glazer, S. A. Silaeva, and S. V. Shestakov | 982 | 1135 |
| The Effect of Imidazole Compounds on $\alpha$-Ketoglutaric Acid Dehydrogenase from Pigeon Breast Muscle—V. S. Gomazkova | 988 | 1142 |
| Characterization of a Region of the DNA Molecule Interacting with Antibodies —A. M. Poverennyi, T. L. Aleinikova, and A. S. Saenko | 994 | 1150 |
| The Study of the Permeability of Artificial Membranes for Neutral and Ionized Substances Depending on the Structure of the Membranes—L. N. Moiseeva and A. G. Pasynskii | 1001 | 1159 |
| Mitochondrial Peroxidase and its Probable Role in Oxidative Processes —T. M. Ivanova, M. A. Davydova, and B. A. Rubin | 1007 | 1167 |
| An Octanol Method of Preparing Acetylcholinesterase from the Erythrocytes of Warm-Blooded Animals and its Catalytic Properties—A. P. Brestkin and D. L. Pevzner | 1013 | 1174 |


## Number 12 December, 1966


| | | |
|---|---|---|
| Dependence of the Properties of Transfer RNA, Acetylated at the 2'-Hydroxy Groups of Ribose, on the Degree of Modification - D. G. Knorre, A. N. Malysheva, N. M. Pustoshilova, A. P. Sevast'yanov, and G. G. Shamovskii | 1019 | 1181 |
| Structural Analysis of Lecithins by Thin-Layer Chromatography - É. V. Dyatlovitskaya, V. I. Volkova, and L. D. Bergel'son | 1025 | 1189 |
| Ratio of Aldolase Activity with Respect to Fructosediphosphate and Fructosemonophosphate in Various Organs and Tissues of the Rat - A. A. Pokrovskii and I. I. Musin | 1032 | 1197 |
| Synthesis and Properties of Mercaptopurine Globulins - E. D. Kaverzneva and V. V. Kiseleva | 1037 | 1204 |
| Purification of the Malate and NAD·$H_2$ Dehydrogenase Complex from Micrococcus lysodeikticus Membranes - I. G. Zhukova, D. N. Ostrovskii, N. S. Gel'man, and A. I. Oparin | 1041 | 1209 |
| Effect of Some Higher Fatty Acids on the Activity of Mitochondrial Monoamine Oxidase - É. A. Rapava, L. B. Klyashtorin, and V. Z. Gorkin | 1047 | 1216 |
| Conformational Changes in 6-Phosphofructokinase Under the Action of an Allosteric Inhibitor - D. S. Markovich, M. P. Mel'nikova, M. V. Vol'kenshtein, and S. A. Neifakh | 1055 | 1225 |

| | Engl. | Russ. |
|---|---|---|
| Photooxidation of Chlorophyll a with Formation of an Electrode-Active Oxidized Form of the Pigment - V. B. Evstigneev, V. A. Gavrilova, and N. A. Sadovnikova | 1058 | 1229 |
| Effect of Light and Darkness on the Content of Acid-Soluble Phosphorus Compounds in the Green Alga Scenedesmus obliquus Kütz - M. V. Pakhomova, G. T. Darkanbaeva, and G. N. Zaitseva | 1065 | 1237 |
| Patterns of Carbohydrate Metabolism of Actinomyces fradiae Grown on Media Containing Starch or Glucose - G. A. Penzikova and M. M. Levitov | 1073 | 1247 |
| Inhibition of RNA Synthesis in Vitro by Basic Polypeptides - V. G. Debabov, O. B. Astaurova, and V. D. Davydov | 1078 | 1253 |
| Microglobulin Synthesized in Vitro and Its Identification by Means of Complexes of Cellulose-Fixed Peptide Chains of γG-Globulin and Corresponding Antibodies - R. S. Nezlin and L. M. Kul'pina | 1081 | 1257 |
| Study of Photosynthetic Pigment Systems by the Emission Spectra and Chemiluminescence Activation Spectra of Chlorophyll in Higher Plants - F. F. Litvin and V. A. Shuvalov | 1087 | 1264 |
| Ribitol Teichoic Acid from the Cell Wall of the Actinomycete Producing the Antibiotic Aurantin - I. B. Naumova and A. N. Belozerskii | 1097 | 1276 |

INDEX

Author Index, Volume 31, 1966 ..... 1105

Table of Contents, Volume 31, 1966 ..... 1109